

drought during the month. Anna, on the 11th, relieved by subsequent rains. Massachusetts—Waltham, drought towards end of month. Texas—Clarksville, drought during month injurious to cotton and late corn; Deason, corn, cotton and vegetables suffering greatly; Pilot Point, 16th, vegetation drying up for want of rain, relieved by heavy thunder-storm on the 18th. Virginia—Wytheville, drought ended on the 16th. Iowa—Ndm Springs, latter part of month corn and potatoes suffering. Wisconsin—Waupasa, during month, wells failing, brooks drying up, swamps dry, crops damaged; hay, half crop; wheat (and oats) half to three-quarters of a crop; potatoes, small amount, no wild fruits, no apples. Dakota—Oliver, 15th. Ohio—Cleveland, 9th.

*Hail-storms.*—Hail-storms have been reported as follows: 1st, Kan., Conn., Md., N. Y., N. J., Ill.; Dak., Pa.; 2nd, Va., N. C., Ill., Kan.; 3rd, Del., N. Y., Pa.; 5th, N. Y., Fla., Ind., N. J., Ohio, Vt., Va., Ga., Dak., Pa., Pembina, D. T.; 7th, Mich.; 8th, Wyoming Tër., Iowa, N. M.; 9th, Conn.; 10th, Wy. Tër., Me., Ind.; 11th, Texas; 13th, N. J., N. M.; 15th, N. C.; 17th, Kans.; 21st, Col.; 22nd, Va., N. M.; 24th, Wy. Tër.; 25th, Col.; 26th, Col., Md., Dak.; 27th, Pa., Dak.; 28th, N. Y.; 29th, N. M.; 30th, N. Y., Dak.

*Large hail-stones.*—1st, Conn., Southington, 1 inch in diameter; N. Y., Farmingdale, size of pigeon's eggs; N. J., Barnegat, 3 inches in circumference; Westtown, stones  $\frac{1}{2}$  to 1 $\frac{1}{2}$  inches in diameter; path of storm, 1000 yards wide; course, N. E. by N.; depth of hail,  $\frac{1}{2}$  to 5 inches; destroyed all vegetable growth, killed one cow, several pigs and chickens, &c. 2nd, Ashfield, N. C., stones as large as pigeon's eggs. 3d, Florida, Mayport,  $\frac{1}{2}$  inch in diameter; N. Y., Adams, 2 $\frac{1}{2}$  inches in diameter. 5th, Ft. Rice, D. T., 3 inches in diameter; Ohio, Murristown, as large as hen's eggs. 7th, Mich., Marquette, one hail-stone measured nine inches in circumference—most were nearly egg-shaped. 6th, N. Y., Rodman, 9 inches in circumference. 13th, N. J., Atlantic City,  $\frac{1}{2}$  inch in diameter. 15th, N. C.; Greenville, as large as pigeon's eggs. 22nd, Santa Fe, as large as pigeon's eggs. 30th, on the Yellowstone, as large as a man's clenched hand, perforating the tepees of the Crow Indians and killing a large number of ponies; at Bismarck, stones as large as pigeon's eggs.

*Snow.*—The 4th, at Summit, Col., was celebrated by a snow-ball party; on snow shoes, which afterward resolved itself into a flower-gathering party, the situation admitting of persons standing on the snow three feet deep, and picking a large variety of Alpine flowers from the uncovered ground beyond the snow. On the 27th, 28th and 29th, snow fell at Pike's Peak.

*Rainy days.*—The number of days on which rain has fallen, as recorded by Signal Service observers, ranges as follows: New England, 10 to 20 days; Middle Atlantic, 13 to 18; South Atlantic, 9 to 14; East Gulf, 8 to 14; West Gulf, 7 to 13; Tennessee and Ohio valley, 10 to 18; Lower Missouri valley, 6 to 14; Upper Mississippi valley, 8 to 10; Upper Lake region, 10 to 18; Lower Lake region, 10 to 14; Rocky Mountain stations, 1 to 19; California, 0 to 1; Oregon, 5.

*Cloudy days.*—The number of cloudy days reported during the month by Voluntary Observers and Army Sergeants ranges about as follows: New England, 6 to 19 days; Middle Atlantic States, 5 to 20 days; South Atlantic States, 3 to 14 days; East Gulf States, 3 to 5 days; West Gulf States, 2 to 16 days; Tennessee and Ohio valley, 5 to 13 days; Lower Missouri valley, 2 to 23 days; Upper Mississippi valley, 2 to 6 days; Lake region, 2 to 22 days.

*Rain from a cloudless sky* was observed at Bangor, Me., on the 17th.

## RELATIVE HUMIDITY.

The average relative humidity for the month ranges about as follows: New England, 65 to 85; Middle Atlantic States, 58 to 86; South Atlantic States, 65 to 78; East Gulf States, 62 to 79; West Gulf States, 65 to 70; Tennessee and Ohio valley, 67 to 70; Lower Missouri valley, 62 to 68; Upper Mississippi valley, 62 to 69; Upper Lakes, 62 to 72; Lower Lakes, 61 to 70; San Diego, 74. High stations, uncorrected for altitude, report as follows: Mt. Washington, 86; North Platte, 47; Cheyenne, 31; Denver, 32.

## WINDS.

*In General.*—The prevailing winds at Signal Service stations are shown by arrows on chart No. II, from which it will be seen that southerly winds greatly predominated, tending to southeast west of the Mississippi; and to southwest along the Atlantic coast and Lake region.

*Total Movements.*—The largest total movements are as follows: Mt. Washington, 14,903 miles; Cape Lookout, 12,022; North Platte, 11,145; Pike's Peak, 11,090; Cape Hatteras, 10,176; Kittyhawk, 9,619; Breckenridge, 9,431.

*The Smallest Movements* are: Shreveport, 1,880; Nashville, 2,707; Augusta, 2,132; Lynchburg, 2,440.

*The Highest Velocities*, in miles per hour, have been: 1st, Sandy Hook, 73; 2nd, Pike's Peak, 50; 19th, Cape Lookout, 60; 25th, Mt. Washington, 65; 28th, Washington, D. C., 60; 30th, North Platte, 84 miles.